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Research Interests:

Composite plates and shells; Low Velocity Impact; Blast loading of structures; Energy absorbers (Tubes/Sandwich)

Selected Publications:

Ramesh Pandey, A.K.Upadhyay and K.K.Shukla (2010), “Hygro-Thermo-Elastic Post buckling Response of Laminated Composite Plates”, J. Aerospace Engineering, ASCE, 23(1), 1-13.

A.K.Upadhyay, Ramesh Pandey and K.K.Shukla (2010), “Nonlinear Flexural Response of Laminated Composite Plates under Hygro-Thermo-Mechanical Loading”, Communications in Nonlinear Science and Numerical Simulation, 15(9), 2634-2650.

A. K. Upadhyay, Ramesh Pandey and K.K.Shukla (2011), “Nonlinear Dynamic Response of Laminated Composite Plates Subjected to Pulse loading.” Communications in Nonlinear Science and Numerical Simulation, 16(11), 4530-4544.

Ramesh Pandey, A.K.Upadhyay, K.K.Shukla and Anuj Jain (2012), “Nonlinear Dynamic Response of Elastically Supported Laminated Composite Plates”, J. Mechanics of Advanced Materials and Structures, 19(6), 397-420.

A.K.Upadhyay, K.K.Shukla (2012) “Large Deformation Flexural Behavior of Laminated Composite Skew

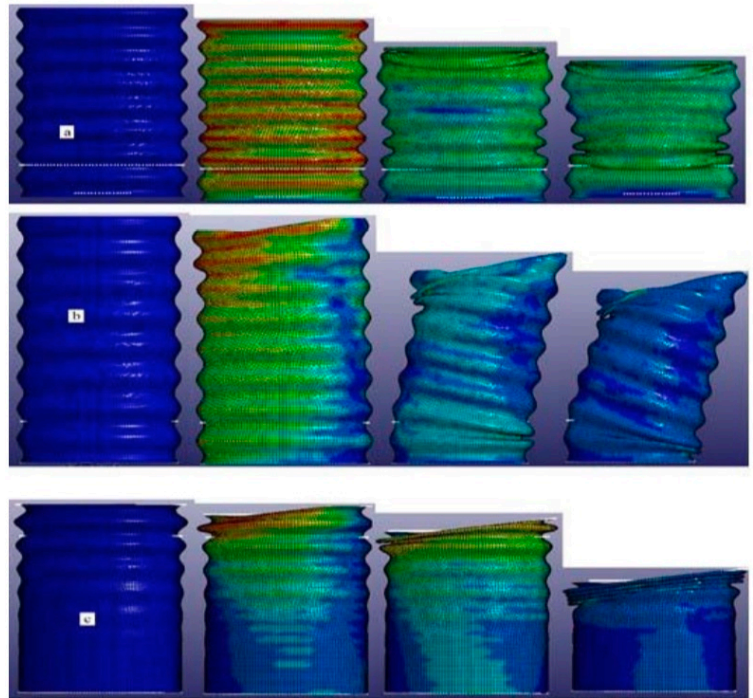


Figure.8 Different types of collapse behavior observed during the deformation of tube.

From: Sharad Rawat, Anirudh Narayanan, Theerthana Nagendiran, A.K.Upadhyay (2017) "Collapse behaviour and energy absorption in elliptical tubes with functionally graded corrugations" Procedia Engineering, Elsevier, 173, 1374-1381.

Plates: An Analytical Approach” *Composite Structures* 94 (12), 3722–3735.

Ambuj Sharma, A. K. Upadhyay and K.K.Shukla (2013), “Flexural Response of Doubly Curved Laminated Composite Shells.” *Science China Physics, Mechanics & Astronomy*, 56 (4), 812-817.

G.Bhardwaj, A.K.Upadhyay, R. Pandey and K.K.Shukla (2013), “Non-linear Flexural and Dynamic Response of CNT Reinforced Laminated Composite Plates” *Composites Part-B*, 45 (1), 89–100.

A.K.Upadhyay and K.K.Shukla, (2013) “Geometrically Nonlinear Static and Dynamic Analysis of Functionally Graded Skew Plates”, *Communications in Nonlinear Science and Numerical Simulation*, 18 (8), 2252–2279.

A.K.Upadhyay and K.K.Shukla, (2013) “Post buckling Behavior of Composite and Sandwich Skew Plates”, *Int. J. Nonlinear Mechanics*, 55, 120- 127.

A.K.Upadhyay and K.K.Shukla, (2013) “Nonlinear Static and Dynamic Analysis of Skew Sandwich Plates”, *Composite Structures*, 105, 141-148.

A.K.Upadhyay and K.K.Shukla, (2014) “Post-buckling analysis of skew plates subjected to combined in-plane loadings”, *Acta Mechanica*, 225, 2959- 2968.

D.Agrawal, S.Rawat and A.K.Upadhyay, (2016) "Crashworthiness of Circular Tubes with Structurally Graded Corrugations," *SAE International*, SAE Technical Paper 2016-28-0050, 2016, doi: 10.4271/2016-28-0050.

Soni Kumari, A.K.Upadhyay and K.K.Shukla (2017) "Stress analysis for an infinite plate with circular holes" *Materials Today: Proceedings*, Elsevier, 4, 2323–2332.

Sharad Rawat, Anirudh Narayanan, A.K.Upadhyay and K.K.Shukla (2017) "Multiobjective optimization of functionally corrugated tubes for improved crashworthiness under axial impact" *Procedia Engineering*, Elsevier, 173, 1382-1389.

Sharad Rawat, Anirudh Narayanan, Theerthana Nagendiran, A.K.Upadhyay (2017) "Collapse behaviour and energy absorption in elliptical tubes with functionally graded corrugations" *Procedia Engineering*, Elsevier, 173, 1374-1381.

Rajendra Bahadur, A.K. Upadhyay, K.K. Shukla (2017), “Static analysis of singly and doubly curved panels on rectangular plan-form”, *Steel and Composite Structures*, 24 (6), 659-670.

Rajendra Bahadur, A.K. Upadhyay and K.K. Shukla, “Dynamic behavior of curved panels of rectangular planar form: An analytical approach”, *International Journal of Structural Stability and Dynamics*, Vol. 18, No. 6, 1850084, June 2018